

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P547166

Luminaire Tested: **FMR-24-4-LD4-3STD-35-UNV-80-97-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P547166
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-4-LD4-3STD-35-UNV-80-97-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

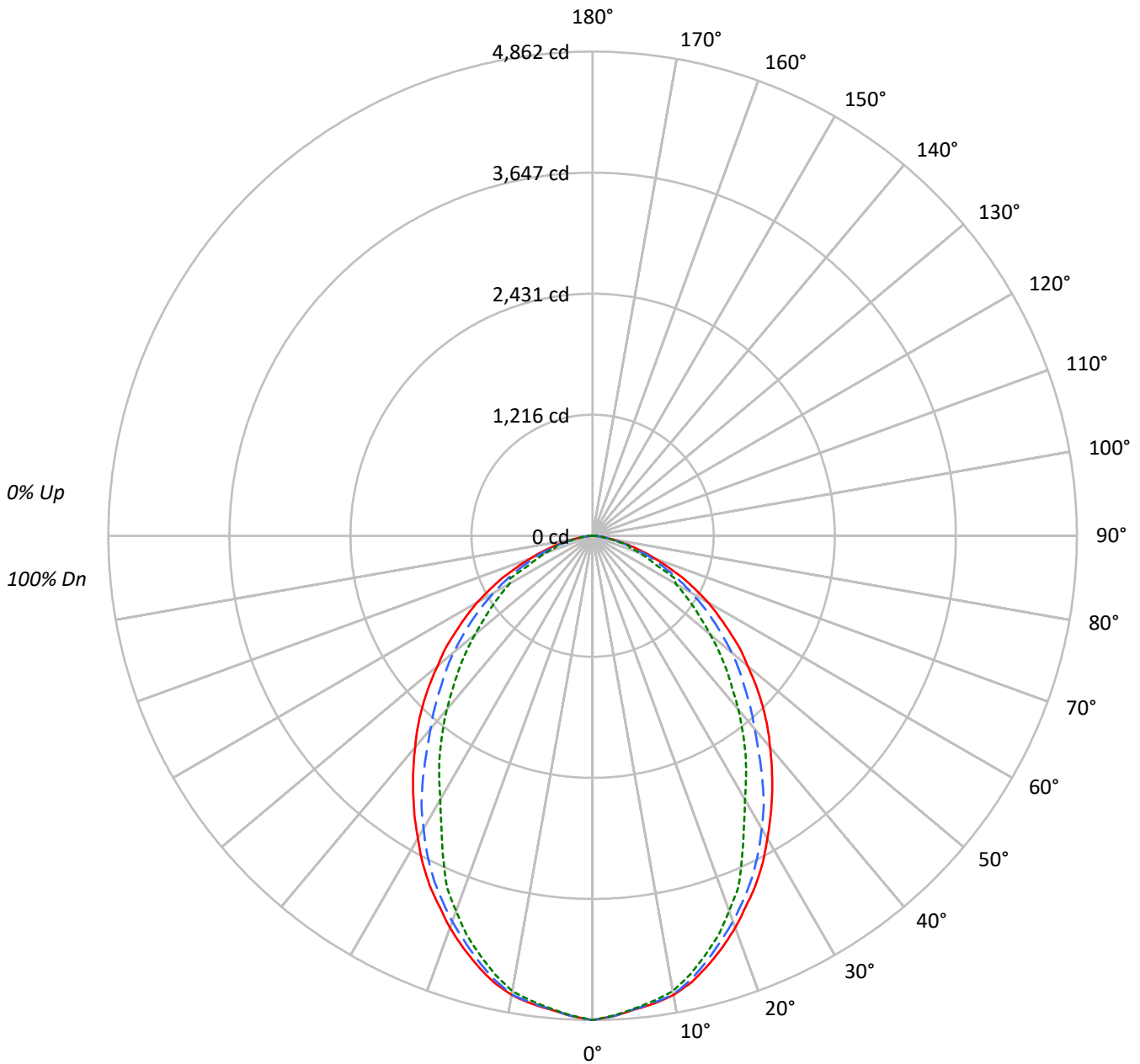
Lumens per Lamp: N/A
Luminaire Lumens: 9545.0 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6542	6542	6542
5°	6453	6445	6438
10°	6397	6389	6343
15°	6225	6162	6076
20°	5996	5899	5738
25°	5749	5624	5274
30°	5449	5275	4751
35°	5161	4875	4395
40°	4867	4443	3998
45°	4588	4107	3615
50°	4248	3812	3224
55°	3929	3455	2888
60°	3600	3086	2587
65°	3167	2702	2291
70°	2609	2366	1946
75°	2075	1812	1900
80°	1394	1306	1220
85°	868	1042	1215



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	452.6	4.7
10°-20°	1242.1	13.0
20°-30°	1719.6	18.0
30°-40°	1833.6	19.2
40°-50°	1672.8	17.5
50°-60°	1310.5	13.7
60°-70°	854.1	8.9
70°-80°	378.4	4.0
80°-90°	81.2	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3414.3	35.8
0°-40°	5247.9	55.0
0°-60°	8231.2	86.2
0°-90°	9545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9545.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4862	4862	4862	4862	4862	
5°	4778	4772	4772	4766	4766	454
15°	4469	4469	4424	4379	4362	1256
25°	3873	3850	3788	3654	3552	1778
35°	3142	3120	2968	2743	2676	1964
45°	2411	2361	2158	1979	1900	1857
55°	1675	1624	1473	1298	1231	1502
65°	995	939	849	866	720	980
75°	399	371	348	332	365	428
85°	56	62	68	73	79	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4862.1	4862.1	4862.1	4862.1	4862.1
2.5°	4828.4	4828.4	4828.4	4822.7	4822.7
5°	4777.8	4772.2	4772.2	4766.5	4766.5
7.5°	4738.4	4732.8	4727.2	4721.6	4710.3
10°	4682.2	4682.2	4676.6	4648.5	4642.9
12.5°	4592.3	4586.7	4564.2	4524.8	4513.6
15°	4468.6	4468.6	4423.7	4378.7	4361.8
17.5°	4333.7	4328.1	4271.9	4226.9	4204.4
20°	4187.6	4176.3	4120.1	4047.1	4007.7
22.5°	4024.6	4024.6	3957.1	3861.6	3822.2
25°	3872.8	3850.3	3788.5	3653.6	3552.4
27.5°	3698.6	3664.8	3597.4	3406.3	3288.2
30°	3507.5	3490.6	3395.0	3147.7	3057.8
32.5°	3327.6	3299.5	3198.3	2939.7	2866.7
35°	3142.1	3119.6	2967.8	2743.0	2675.6
37.5°	2956.6	2928.5	2737.4	2557.5	2473.2
40°	2771.1	2737.4	2529.4	2366.4	2276.5
42.5°	2596.9	2551.9	2349.5	2175.3	2074.1
45°	2411.4	2360.8	2158.4	1978.6	1899.9
47.5°	2225.9	2180.9	1995.4	1809.9	1720.0
50°	2029.2	1989.8	1821.2	1635.7	1540.1
52.5°	1866.1	1804.3	1641.3	1455.8	1377.1
55°	1675.0	1624.4	1472.7	1298.4	1231.0
57.5°	1500.8	1450.2	1309.7	1146.7	1090.5
60°	1337.8	1264.7	1146.7	1006.1	961.2
62.5°	1157.9	1101.7	1000.5	882.5	938.7
65°	994.9	938.7	848.8	865.6	719.5
67.5°	815.0	786.9	708.2	629.5	607.1
70°	663.3	629.5	601.4	517.1	494.6
72.5°	528.4	494.6	455.3	410.3	393.5
75°	399.1	371.0	348.5	331.6	365.4
77.5°	275.4	264.2	247.3	230.5	224.8
80°	179.9	174.2	168.6	163.0	157.4
82.5°	106.8	106.8	106.8	106.8	106.8
85°	56.2	61.8	67.5	73.1	78.7
87.5°	33.7	33.7	39.3	45.0	50.6
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)